

Instructions to Reviewers

Freshwater Wetlands in Washington State: Volume 1 A Synthesis of the Science

Thank you for your interest in reviewing and commenting on the draft synthesis of the science regarding freshwater wetlands in the state of Washington. We really appreciate you making time in your busy schedule to comment. Peer review is an important step in developing any scientific synthesis.

**Please provide
comments by
October 22, 2003**

The following instructions describe how we would like you to review this document. The instructions include a questionnaire. **Please read the instructions and questionnaire before you read the report.**

Background on the Document

This synthesis is the first of a two-volume document. Volume 1 is a summary and synthesis of the recent literature relevant to the science and management of freshwater wetlands. Volume 1 describes what the scientific literature says about:

- How environmental factors control the functions of wetlands at several geographic scales, how freshwater wetlands are classified according to these environmental controls, and what functions are performed by different classes of wetlands in the state
- How human activities and land uses create disturbances that affect these environmental factors
- How these disturbances impact the performance of functions of freshwater wetlands
- How wetlands are currently protected and managed using tools such as buffers and compensatory mitigation and the effectiveness of these tools
- How the use of the current tools still results in the cumulative degradation of wetlands and their functions

Volume 2 will provide options and recommendations for policies and regulations to better protect and manage wetlands based on the scientific information in Volume 1.

Not all the scientific literature on wetlands was reviewed. We prioritized articles, theses, and reports that provided information specific to wetlands and their functions or which have a practical application to their management and protection. We focused on scientific information on freshwater wetlands in Washington and the Pacific Northwest. However, when relevant or when other information was lacking, literature from other regions and countries was used. Documents from the past 10 years were the primary

sources for this report. We assumed that this most recent literature would incorporate relevant science from the preceding years. We used older documents in instances where they had not been superseded by more recent studies.

Intended Audience

This document is intended for all those interested in protecting and managing wetlands. Therefore, the targeted audience includes both those who have technical training and those who do not. Examples of potential users include federal, state, and tribal staff, planners, resource managers, wetland scientists, builders, farmers, environmentalists, and other concerned citizens. Readers will find this document useful in gaining a greater understanding about the current science of wetlands and their functions as part of a broader landscape, wetland functions and the human activities that affect them, and the management of freshwater wetlands.

This document may be of special interest to local governments that don't have the resources to complete their own review of the scientific literature. The Growth Management Act requires local governments to include the "best available science" when developing or revising their policies and regulations for wetlands. Local governments should, however, also consider locally and regionally specific information not included in this synthesis if such information meets the characteristics of scientific information and a valid scientific process as described in Appendix B at the end of the document.

Production of the Document

This document was prepared by the Washington State Department of Ecology (Ecology) with technical assistance and funding from the Washington State Department of Fish and Wildlife (WDFW), and Sheldon and Associates. The U.S. Environmental Protection Agency (EPA) provided funds to both Ecology and WDFW for the project and assisted in its production. Representatives from these agencies, as well as Sheldon and Associates, made up a team (the Core Team) that guided the project. Refer to Chapter 1 and Appendix C for a description of how the document was produced.

What is Not Covered in the Synthesis

This synthesis is limited to wetlands and does not address streams or riparian areas that are not wetlands. We do however summarize literature related to stream buffers. The document also does not contain information on wetlands that are tidally influenced, either salt or freshwater. Marine and estuarine systems were excluded primarily to keep the scope of the project in the range of the available funding.

Cranberry growing is a land use that is not specifically addressed in this document because of the time and funding constraints of the project and the limited area that is affected by this agricultural practice. Information related to the effects of silviculture and forest practices on forested wetlands is not included because these topics are addressed in another document that is under production by a consultant for the Washington State Department of Natural Resources (Cooke in press).

Information Known to be Lacking

There are subjects for which we have included little or no information because our searches of databases resulted in few if any studies. Topics about which we found little information are listed below. Reviewers are asked to provide references that may help fill these gaps if they know of additional scientific literature. The topics include:

- The effects of the mining on wetlands and their functions
- The effects of the mining of peat on wetland functions
- The effects of polluted groundwater on wetland functions
- Non-native, invasive plants in the context of understanding how they impact wetland functions (not the control of invasive plants for restoration or enhancement)

We expect that we may have missed other topics as well. Please let us know if you identify topics that you think are critical to better managing wetlands by answering the questionnaire (see below) and giving us your opinion regarding how we should deal with the gaps.

Lack of Consistency in Format for List of Cited References

Reviewers will note that the formatting for the list of cited references at the back of the document is not consistent. For example, abbreviations are used in some entries in the list but not for others. A database was used to manage references and help generate the list of references cited. The software and other issues presented a number of challenges that resulted in the inconsistent formatting in the list of cited references. Because of the time required to address these issues, we decided to send out the draft with this defect and correct it for the final version.

Availability of Ecology Documents on the Web

Some of the Ecology documents cited in the draft of Volume 1 are available on the web at www.ecology.wa.gov/programs/sea/wetlan.html. Examples include:

- Methods for Assessing Functions in Riverine and Depressional Wetlands Located in the Lowlands of Western Washington (Volume I)
- Methods for Assessing Functions in Depressional Wetlands located in the Columbia Basin of Eastern Washington (Volume II)
- Draft Revised [Washington State Wetlands Rating System for Eastern Washington](#) (2003)

We encourage you to access the site if you are interested in additional information about these documents.

How the Document is Being Distributed

Reviewers are obtaining the draft document for review in three ways:

1. Accessing files on the project's web page
2. Receiving CDs containing PDF files, per request by individual reviewers
3. Receiving hard copies, per request by individual reviewers

The web address is <http://www.ecy.wa.gov/biblio/0306016.html>

On the web page and CD there will be numerous files. The files on the CD are in a PDF format to make sure that all reviewers can open the files. You can't make changes in the PDF files. Instructions are provided below for sending us your comments.

Who is Reviewing the Document and What to Consider When Reviewing

Anyone who wants to review the document is encouraged to do so. Technical and non-technical review is occurring simultaneously. Peer experts have been solicited to ensure that at least two experts are reviewing each major subject. We ask that the many other experts across the state and in the Pacific Northwest also provide comments on the document. We ask those with technical expertise to consider the following while reviewing the document

1. Have we misinterpreted cited references?
2. Is there a topic or subject of importance we are leaving out and how do we fill those gaps?
3. Are there important references we have missed for topics covered in Volume 1?
4. Are we putting the wrong emphasis on any topic or presenting anything in a biased way?

The non-technical reviewers should focus on issues regarding organization and clear writing and topics of importance we may have left out. All these questions are included in a questionnaire that all reviewers are asked to complete, along with providing detailed comments.

What Parts to Review

We would be delighted if you reviewed Volume 1 in its entirety. However, some may not have the time. At a minimum, whether you are a technical or non-technical reviewer, we suggest you:

1. Scan the table of contents
2. Read Chapter 1 (and Appendix C if you are interested) as an introduction
3. Review as much of the rest as you can (prioritizing chapters or sections for which you have the most expertise)

4. Scan the rest of the document reading the summary and conclusions for each chapter

Don't forget to look at the appendices as well.

How to Comment

Please provide your comments to Teri Granger at the addresses in the box. Teri will be out of the office from September 15 through 26. Therefore, if you have questions or comments prior to September 26, contact Tom Hruby at thru461@ecy.wa.gov (360) 407-7274 or Andy McMillan at anmc461@ecy.wa.gov (360) 407-7272.

Send Comments To:

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Please provide two sets of comments:

1. Answers to the questionnaire
2. Detailed comments

You can provide comments in three ways:

- Written on a hard copy of the questionnaire and document
- Written in a separate **Word** file in which you answer the questions and provide detailed comments or suggestions. Please indicate the section or page and paragraph to which your comment or suggestion applies.
- Typed in the box provided on the web site for the questionnaire and for detailed comments. Please indicate the section or page and paragraph to which your comment or suggestion applies.

Please provide rationale and references for suggested changes regardless of the format you use to comment.

For those who receive the draft via CD or from the web, it will be in a PDF format. You will not be able to alter the text or type comments directly into the draft.

Please read the questionnaire before you begin so you can be thinking about the questions as you read.

What Happens After You Comment

Once the deadline for comments has passed, the Core Team will review comments and revise the text as appropriate. If we have missed any significant references, we will attempt to obtain them quickly and include them in the synthesis. Any important changes will be announced; however, a final version of Volume 1 won't be produced until after significant work has been completed on Volume 2. We want to shift our focus to completing a draft of Volume 2 as soon as possible.

Questions to Answer Regarding Volume 1

1.0 Organization and Clear Writing

- 1.1 Are there chapters or sections that are poorly organized, unclear or illogical?
- 1.2 If yes, which chapters or sections are they?
- 1.3 Do you have any ideas or suggestions to improve the organization of Volume 1?

2.0 Emphasis

- 2.1 Are we putting the wrong emphasis on any topic or presenting anything in a biased way?
- 2.2 If yes, what are we incorrectly emphasizing or what have we presented in a biased way?
- 2.3 If yes, what chapter and section contains the incorrect emphasis/bias?
- 2.4 Please provide rationale and citations.

3.0 Misrepresentations, Omissions and Errors

- 3.1 Are there any conclusions that you believe misrepresent the cited references?
- 3.2 If yes, specify the reference and how you feel we have misrepresented the author's conclusions.
- 3.3 Is there a topic or subject of importance we are leaving out? For instance, we know we don't address subjects such as control of non-native, invasive plants or peat mining.
- 3.4 If yes, which subject/topic is missing?
- 3.5 Please provide rationale and, if possible, citations to help us fill this gap.

4.0 References

4.1 Are there important references we have missed for topics covered in Volume 1?

4.2 If yes, what references we have missed?

4.3 If yes, please tell us to which subject and section it pertains.

4.4 Please provide rationale and a citation to help us track down the reference.

Thanks Again!